

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US00/04819

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G06F 17/60  
US CL :705/41

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/41, 35, 39, 43, 44

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Microsoft Press, Microsoft Press Computer Dictionary 3rd edition.  
Considine, Van Nostrand's Scientific Encyclopedia 6th edition.

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Extra Sheet.

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 5,748,737 A (DAGGAR) 05 MAY 1998, the summary of the invention, col.4 lines 28-35, col.19 lines 25-36.	1-84
Y	US 5,721,781 A (DEO ET AL.) 24 FEBRUARY 1998, the abstract, background, and the summary of the invention, Figs. 7-8, col.4 lines 12-14, col.1 lines 17-30, col.9 lines 24-38, col.12 lines 7-22, and claims 1, 3.	1-84
Y,P	US 5,907,142 A (KELSEY) 25 May 1999, the abstract, col.3 lines 35-62, col.9 lines 3-34.	1-84
Y	US 5,875,394 A (DALY ET AL.) 23 FEBRUARY 1999, the summary of the invention, Fig. 3, col.3 line 30 to col.4 line 10.	1-84

Further documents are listed in the continuation of Box C.  See patent family annex.

* Special categories of cited documents:	"T"	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be of particular relevance		
*E* earlier document published on or after the international filing date	"X"	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*O* document referring to an oral disclosure, use, exhibition or other means	"&"	document member of the same patent family
*P* document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search	Date of mailing of the international search report
10 JUNE 2000	23 AUG 2000

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks Box PCT Washington, D.C. 20231 Facsimile No. (703) 305-3230	Authorized officer  CUONG H. NGUYEN Telephone No. (703) 305-4553
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## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 6,006,328 A (DRAKE) 21 DECEMBER 1999, see the abstract, and the summary of the invention.	1-84
A,P	US 5,901,228 A (CRAWFORD) 04 MAY 1999, the entire patent.	1-84
A	US 5,815,657 A (WILLIAMS ET AL.) 29 SEPTEMBER 1998, the entire patent.	1-84
A,P	US 5,963,924 A (WILLIAMS ET AL.) 05 OCTOBER 1999, the summary of the invention.	1-84
A,P	US 6,016,484 A (WILLIAMS ET AL.) 18 JANUARY 2000, the background and the summary of the invention.	1-84

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**B. FIELDS SEARCHED**

Electronic data bases consulted (Name of data base and where practicable terms used):

WEST1.2/DERWENT, DIALOGUE CLASSIC, NPL (CORPORATE RESOURCE NET)  
search terms: register\$3 same user\$1, public with key\$1, identif\$ same key\$1, encrypt\$3 or decrypt\$3, approv\$3 with  
request\$1, write same authenticat\$3, transact\$3 and (authenticat\$3 same authoriz\$5 same emulat\$), ((memory or stor\$)  
same write) and smart, interac\$3 same imitat\$3, (card with terminal) same interfac\$3 same emulat\$3, scal\$3 or  
vendor\$1, (on-line or on-line) with transact\$, opinion\$ or review\$1 or rating\$1, attribute\$1 or match\$3, crit\$ or  
specification\$1, www or web or internet.